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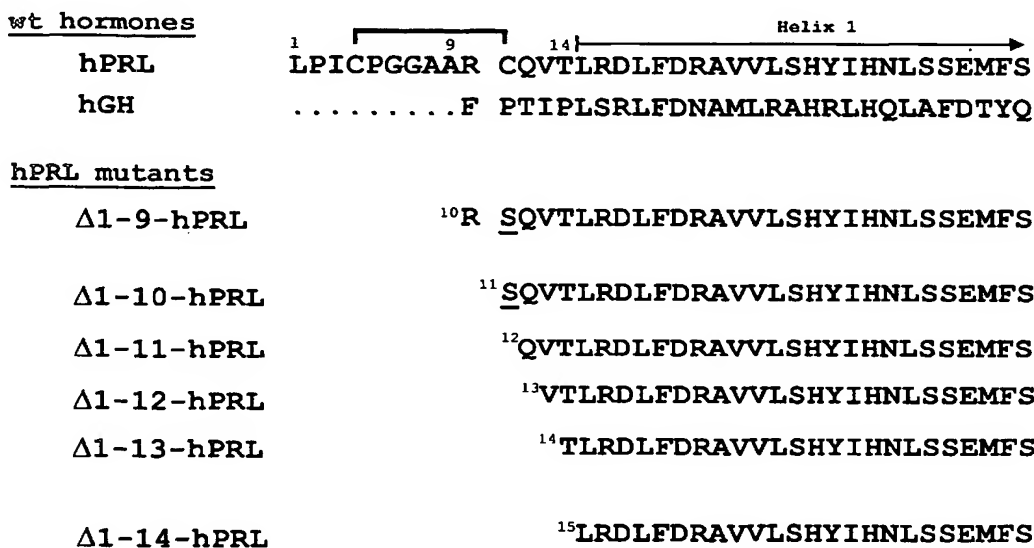
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(54) Title: MAMMAL PROLACTIN VARIANTS



(57) Abstract: The invention relates to mammal prolactin (PRL) variants having a mutation or set of mutations within the 14 N-terminal amino acids thereby preventing the formation of a disulfide bridge between Cys4 and Cys11 and, a sterically hindering mutation or set of mutations within binding site 2 of PRL. These variants are useful as antagonists of mammal prolactin receptors (PRLR), more particularly of human prolactin receptor (hPRLR).



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/00448

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/575 A61K38/22 C12N1/21 A01K67/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	S. BERNICHTEIN ET AL.: "N-Terminal Deletion in Human Prolactin Enhances Biological Activity and Reduces Formation of Covalent Multimers" ENDO 2000, ENDOCRINE SOCIETY 82ND ANNUAL MEETING, TORONTO, June 2000 (2000-06), page 153 XP001070977 cited in the application abstract 613 page 153 -/-	1-12

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

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- *A* document defining the general state of the art which is not considered to be of particular relevance
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	V. GOFFIN ET AL.: "Antagonistic Properties of Human Prolactin Analogs That Show Paradoxical Agonistic Activity in the Nb2 Bioassay" J. BIOL. CHEM., vol. 271, no. 28, 12 July 1996 (1996-07-12), pages 16573-16579, XP002921797 cited in the application Discussion	1-12
A	--- M. LLOVERA ET AL.: "Involvement of prolactin in breast cancer: redefining the molecular targets" EXPERIMENTAL GERONTOLOGY, vol. 35, 2000, pages 41-51, XP002198974 page 48, paragraph 2	
A	--- A. TCHELET ET AL.: "Selective Modification at the N-terminal Region of Human Growth Hormone That Shows Antagonistic Activity" MOLECULAR AND CELLULAR ENDOCRINOLOGY, vol. 130, 1997, pages 141-152, XP002198975 abstract -----	